

WHAT IS CLAIMED:

1. A method for fabricating a semiconductor device comprising the steps of:
 - forming a conductor pattern over a semiconductor substrate;
 - forming a first insulation film covering the conductor pattern and having a substantially flat surface;
 - forming over the first insulation film a second insulation film having etching characteristics different from those of the first insulation film;
 - forming over the second insulation film a third insulation film having etching characteristics different from those of the second insulation film;
 - forming over the third insulation film a mask layer;
 - etching the third insulation film with the mask layer as a mask and the second insulation film as a stopper to form an opening in the third insulation film;
 - etching the second insulation film in the opening with the first insulation film as a stopper so as to open the opening down to the first insulation film; and
 - etching the first insulation film in the opening.
2. A method for fabricating the semiconductor device according to claim 1, further comprising:
 - before the step of forming the first insulation film, the step of forming over the conductor pattern a fourth insulation film having etching characteristics different from those of

the first insulation film, and wherein in the step for etching the first insulation film, the first insulation film is etched with the fourth insulation film as a stopper.

3. A method for fabricating the semiconductor device according to claim 1,
wherein
in the step of etching the first insulation film, the opening is opened down to the semiconductor substrate.

4. A method for fabricating the semiconductor device according to claim 1,
wherein in the step of etching the first insulation film, the opening is opened down to the conductor pattern.

5. A method for fabricating the semiconductor device according to claim 2,
wherein
in the step of forming the fourth insulation film, the fourth insulation film is formed selectively over an upper surface and a side wall of the conductor pattern.

6. A method for fabricating a semiconductor device comprising the steps of:

forming a first conductor pattern over a semiconductor substrate;

forming a first insulation film covering the first conductor pattern;

forming over the first insulation film a second insulation film having etching characteristics different from those of the first insulation film;

polishing the second insulation film;

forming over the second insulation film a third insulation film having etching characteristics different from those of the second insulation film;

forming over the third insulation film a fourth insulation film having etching characteristics different from those of the third insulation film;

forming a hole in the fourth insulation film, the third insulation film, the second insulation film and the first insulation film; and

forming a second conductor in the opening.

7. A method for fabricating the semiconductor device according to claim 6, wherein

in the step of polishing the second insulation film, the second insulation film is polished by chemical mechanical polishing.

8. A method for fabricating the semiconductor device according to claim 6, wherein

each of the first insulation film and the third insulation film is formed of silicon nitride, and

each of the second insulation film and the fourth insulation film is formed of non-doped silicon oxide.

9. A method for fabricating a semiconductor device comprising the steps of:
 - forming a first conductor over a semiconductor substrate;
 - forming a first insulation film covering the first conductor;
 - forming over the first insulation film a second insulation film having etching characteristics different from those of the first insulation film;
 - polishing the second insulation film;
 - forming over the second insulation film a third insulation film;
 - forming over the third insulation film a fourth insulation film;
 - forming a hole exposing a second conductor in the fourth insulation film, the third insulation film and the second insulation film; and
 - forming a third conductor in the hole.

10. A method for fabricating the semiconductor device according to claim 9, wherein
 - in the step of polishing the second insulation film, the second insulation film is polished by chemical mechanical polishing.

11. A method for fabricating the semiconductor device according to claim 9,
wherein
each of the first insulation film and the third insulation film is formed of silicon
nitride, and
each of the second insulation film and the fourth insulation film is formed of non-
doped silicon oxide.

12. A method for fabricating a semiconductor device comprising the steps of:
forming an impurity doped region in a semiconductor substrate;
forming a first conductor over the semiconductor substrate;
forming a first insulation film covering the first conductor;
forming over the first insulation film a second insulation film having etching
characteristics different from those of the first insulation film;
polishing the second insulation film;
forming over the second insulation film a third insulation film;
forming over the third insulation film a fourth insulation film;
forming a hole exposing the impurity doped region in the fourth insulation film,
the third insulation film and the second insulation film; and
forming a second conductor in the hole.

13. A method for fabricating the semiconductor device according to claim 12,
wherein
in the step of polishing the second insulation film, the second insulation film is
polished by chemical mechanical polishing.

14. A method for fabricating the semiconductor device according to claim 12,
wherein
each of the first insulation film and the third insulation film is formed of silicon
nitride, and
each of the second insulation film and the fourth insulation film is formed of non-
doped silicon oxide.